# OVERVIEW

**MODULE:** **DERIVED**
**SUBMODULE:** **N/A**

## ***Function:***

The Derived module calculates values for those items specified in the Item Data Dictionary as "derived" items (ISOURCE = 'D'). The program updates the values for these items in the Item file (IT*yyyypp*).

## ***Overview:***

A derived item is an item defined in the Item Data Dictionary that is not collected on the survey form. It is a derivation of other form items.

Example: Items A, B, C, and D are collected on the survey form. A sum of these four items is desired (for inclusion in the Item file), therefore a derived Item E is created. Item E is considered a derived item because it is not actually an item on the survey form. Its value is derived as the sum of Item A + Item B + Item C + Item D.

StEPS users will define the parameters needed by the derived module using StEPS interactive screens. With the parameters in place, a SAS program is generated which contains all derived item definitions. The generated code is submitted to batch via a script file (SAS program) or run on a single ID through Review and Correction. The derived items are created on a fat data set and applied back to item data sets using the StEPS comparison program.

Not all surveys will have derived items. For those that do, the following steps must be taken to create derived items and to calculate their values:

- Analyst will determine all derived items that are needed for the survey and enter each one in the Item Data Dictionary with ISOURCE = 'D'.
- Analyst will determine which stat periods of data will be needed to compute the derived item values, and update the survey's relative stat period file accordingly.
- Analyst will determine which versions (i.e., reported, edited, adjusted, weighted) of the item data (used to compute the derived item values) will be needed, and update the survey's data version file accordingly.
- Analyst will enter the formulas needed to calculate the values for each derived item.

Formulas are typically entered to calculate the *edited* version of the derived item, although a separate derived formula may also be entered to compute the *adjusted* version of the derived item.

- Analyst will generate (interactively) the SAS code needed to create the derived program for the survey they are processing.

- Analyst will consult with their production programmer to determine if survey-specific code is needed to calculate the value of derived items for the survey. If it is, the programmer will be responsible for writing the code needed.

- Analyst may run the derived program for an individual ID in the Review and Correction module, using any of the ID X Item screens.

- Analyst may run the derived program on the entire survey in batch.

- Analysts can test the derived formulas by running the derived program on the development machine. When they are confident that the program is producing the intended results, they will have the production programmer copy the parameters to the production machine. Be sure to regenerate the code on the production machine once the parameters have been copied.